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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,747	09/08/2003	Hitoshi Yamada	FUJI 20.624 (100794-00480)	1140
26304 7590 01/18/2008 KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			EXAMINER DIVECHA, KAMAL B	
			ART UNIT 2151	PAPER NUMBER
			MAIL DATE 01/18/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

mn

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/657,747		YAMADA ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	KAMAL B. DIVECHA		2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20030908</u>  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

Claims 1-20 are pending in this application.

**Reassignment of an application to another Examiner**

This application has been reassigned to another examiner. The examiner has carefully evaluated the instant claims in view of the prior art. The examiner has conducted a new and careful search of the pertinent prior art areas and presents herein an examination of the claims in view of the newly discovered prior art references. The instant office action is made non-final in order that Applicant may properly respond on the record and submit any necessary amendment to the claims. All previous outstanding rejections/objections are withdrawn.

**Information Disclosure Statement**

The information disclosure statement (IDS) submitted on September 08, 2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

**Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 7-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Independent claim 7 recites:**

A network control apparatus coupled within a network having resources and controlling the network, comprising:

a storage section;

a measuring section to measure load information of the resources at measuring intervals and to store the measured load information in the storage section;

a predicting section to predict the load information of the resources according to a prediction algorithm and to store the predicted load information in the storage section; and

an adjusting section to adjust the measuring intervals based on the measured load information and the predicted load information stored in the storage section.

Initially, the claim fails to fall into any of the four enumerated category of the patentable statutory subject matter as set forth above.

Although the claim appears to disclose the “apparatus”, the claim actually lacks the necessary physical articles/objects/elements/components to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter.

As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

[Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of

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technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Merely claiming nonfunctional descriptive material, i.e., abstract ideas stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make the claim statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer").]

In the instant case, a storage section may represent a data structure, e.g. see applicant specification, pg. 15 lines 23-27, a measuring section is clearly a software such as SNMP management software, e.g. specification, pg. 11 lines 2-14, a predicting section is also a software and/or algorithm, see pg. 12 lines 5-15, and an adjusting section can be a computer program, i.e. instructions, pg. 14 lines 15-35, pg. 16 lines 10-14, thus directing the claim, as a whole, to be interpreted and/or implemented as a computer program and/or as a software, i.e. software per se.

Hence, the claim fails to place the claimed invention, more specifically claims 7-14, squarely within one statutory class of invention as set forth above.

Independent claim 11 further includes "a plurality of resources". Based on the broadest reasonable interpretation, the plurality of resources may comprise data structures and/or computer codes. As such, Independent claim 11 is rejected for the same reasons as set forth in claim 7 above.

Claims 8-10 and 12-14 are rejected for the same reasons as set forth in claim 7 above.

Applicant is advised to take appropriate action.

Examiner's Note: A computer readable storage medium as in claim 15 is defined to include magnetic disks, optical disks, and/or magneto-optical disks (applicant specification, pg. 29 lines 14-34).

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rawson, III (hereinafter Rawson, US 2002/0073187 A1) in view of Levine et al. (hereinafter Levine, US 7,028,083 B2).

As per claim 1, Rawson discloses a resource load measuring method for measuring load information of resources within a network (pg. 1 [0008]), comprising:

measuring the load information of the resources at measuring intervals and storing the measured load information in a storage device (pg. 2 [0020], [0026]);

predicting the load information of the resources and storing the predicted load information (pg. 2 [0024—0027]: i.e. usage of “expected parameters” indicates the presence of expecting or predicting the information);

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adjusting the measuring intervals based on the measured load information and the predicted load information stored in the storage section (pg. 1 [0008], pg. 2 [0024-0028]: i.e. varying the period based on the expected values and measured values).

However, Rawson does not disclose the process of using a prediction algorithm to predict the load information of the resources (according to applicant specification, the prediction algorithm is exponentially weighted moving average algorithm)

Levine explicitly discloses using the exponentially weighted average algorithm, i.e. a prediction algorithm, to predict the load information of the resources and store the predicted load information in a storage device (col. 2 L46-65, col. 7 L5-29, col. 9 L4-53: table 1, col. 10 L28-53).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Rawson in view of Levine (hereinafter referred as the combination) in order to predict the load information using the prediction algorithm.

One of ordinary skilled in the art would have been motivated because it would have enabled to smooth out aberrations over time in measured data and would have helped to indicate accurate trends (Levine: col. 10 L28-48).

As per claim 2, the combination discloses the process wherein the predicted load information is predicted based on time-varying information in the measured load information (Levine: col. 7 L5-29, col. 9 L4-53: table 1, col. 10 L28-53: i.e. prediction is based on the historical and/or current data).

As per claim 3, the combination discloses the process wherein the predicted load information is predicted based on at least one error between present measured load information and previous load information (Rawson: pg. 2 [0024-0028]; Levine: fig. 8).

As per claim 4, the combination discloses the process wherein the measuring intervals are adjusted based on at least one error between the measured load information and the predicted load information (Rawson: pg. 1 [0008], pg. 2 [0024-0028]: i.e. varying the period based on the different expected and measured values).

As per claim 5, Rawson discloses the process wherein the measuring, the predicting and the adjusting are carried out by a network control apparatus within the network (fig. 1 item #110, pg. 2 [0020], [0025-0028]), and the resources include communication nodes within the network (fig. 1 item #130, pg. 1 [0014]).

As per claim 6, Rawson discloses the process wherein the measuring, the predicting and the adjusting are carried out by a communication node within the network, in response to an instruction from a network control apparatus within the network, and the resources are provided within the communication node (fig. 1 item #110, 130, pg. 2 [0020]: a metaserver can be a specialized thin server; [0022], [0024-0028]).

As per claims 7-20, they do not teach or further define over the limitations in claims 1-6. Therefore, claims 7-20 are rejected for the same reasons as set forth in claims 1-6.



**Additional References**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Carney et al., US 6,615,161 B1: Adjusting an Interval of Polling a peripheral device in response to changes in the status and/or reliability of receiving traps.
- b. Greuel et al., US 7,003,564 B2: Customizably calculating and displaying health of a computer network.
- c. Gu et al., US 6,744,780 B1: Managing communications network: dynamically adjusting the monitoring interval.
- d. Kumar, US 6,640,268 B1: Dynamic polling mechanism: adjusting polling rate.

**Conclusion**

This Action is made Non-Final.

Examiner's Remarks: The teachings of the prior art shall not be restricted and/or limited to the citations by columns and line numbers, as specified in the rejection. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner, in order to move prosecution forward.

In the case of amendments, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and support, for ascertaining the metes and bounds of the claimed invention.

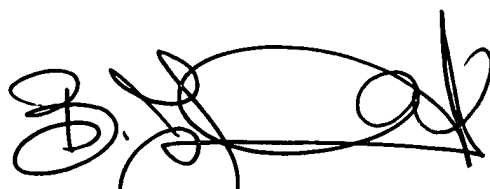
Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on Increased Flex Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kamal Divecha/

Kamal Divecha  
Art Unit 2151  
November 29, 2007.



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SUPERVISORY PATENT EXAMINER

12/2/7